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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/824,092

Applicant(s)

KUMAR, AJAY

Examiner

CINDY NGUYEN

Art Unit

2161

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10-14-08.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/55/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This is in response amendment filed 10/14/08.

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Calusinski (US 20050071342) in view of Mullins (US 20040123048, hereafter Mullins).

Claims 1, 2, 4-8, 10, 11, 13-15, 17-21, 23, 24, 26-28, 30-34, 36, 37 and 39 are rejected under 35 U.S.C. 102(e) as being anticipated by anticipated by Calusinski (US 20050071342).

Regarding claims 1, 14 and 27, Calusinski discloses: a system, a method and a computer-accessible storage medium, comprising: a processor, (paragraph 0016, Calusinski); and

Memory (computer memory, paragraph 0016, Calusinski) coupled to the processor and configured to store program instructions executable by the processor to implement a class structure based data object enhancer configured to (paragraph 0025 , Calusinski):

input one or more classes (i.e., given the class name of a business object, paragraph 0030, Calusinski);

analyze the structure of the one or more classes to determine a persistence structure specifying data fields of the one or more classes to be persisted (i.e., determining all data values in the business object can be mapped to corresponding fields in the persistent data structure, paragraph 0061, 0062 Calusinski); and

generate one or more enhanced classes corresponding to the one or more classes such that an object of the one or more classes is enhanced to persist data of the data fields to be persisted according to the persistence structure object (i.e., Create method on a reflection class object that contains descriptive information about the class and return objects describing the business object's member methods and data fields, see paragraph 0032, 0059, 0060 Calusinski) , wherein said data of the data fields to be persisted is data of said object (data types, integer, string, array... in a persistent data store, paragraph 0028, Calusinski);

However, Calusinski didn't disclose: wherein the generation of each of said one or more enhanced classes comprises adding to the corresponding one of said one or more classes, one or more calls to persist data fields as specified by the persistence structure. On the other hand, Mullins discloses: wherein the generation of each of said one or more enhanced classes comprises adding to the corresponding one of said one or more classes, one or more calls to

persist data fields as specified by the persistence structure (see paragraphs 0054, 0055, 0164, 0188, 0194, Mullins).

Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include the steps for adding to the corresponding one of said one or more classes, one or more calls to persist data fields as specified by the persistence structure in the system of Calusinski as taught by Mullins. The motivation being to avoid the need for object lookup again even with multiple clients (see paragraph 0183, Mullins).

Regarding claims 2, 15 and 28, all the limitations of this claim have been noted in the rejection of claims 1, 14 and 27 above. In addition, Calusinski/Mullins disclose: wherein to analyze the structure of the one or more classes, the class structure based enhancer is configured to make one or more Java reflection calls to the one or more classes (i.e., calling Java reflection methods in a Java reflection interface, example, the business object has a class name, and as described above, inferring the business object data structure from metadata describing the business object typically is accomplished by inferring the business object data structure in dependence upon the class name of the business object, paragraph 0059, Calusinski).

Regarding claims 3, 16, 29, all the limitations of this claim have been noted in the rejection of claims 1, 14 and 27 above. In addition, Calusinski /Mullins disclose: wherein to analyze the structure of the one or more classes, the class structure based enhancer is

configured to parse bytecode of the one or more classes to determine class and field attributes (see paragraphs 0054, 0055, 0097, 0164, 0188, 0194, Mullins).

Regarding claims 4, 17 and 30, all the limitations of this claim have been noted in the rejection of claims 1, 14 and 27 above. In addition, Calusinski discloses: wherein the class structure based enhancer is further configured to generate metadata that includes the results of the analysis of the structure of the one or more classes (i.e., creating a data object structured according to a persistent data structure at least describes the table names, the field names, and the field values for use in processing of the persistent data store, see paragraph 0064, Calusinski).

Regarding claims 5, 18, 31, all the limitations of this claim have been noted in the rejection of claims 4, 17 and 30 above. In addition, Calusinski/Mullins discloses: wherein the generated metadata is output explicitly as a metadata file (i.e., XML document in paragraph 0063, Calusinski).

Regarding claims 6, 19 and 32, all the limitations of this claim have been noted in the rejection of claims 5, 18, 31 above. In addition, Calusinski/Mullins discloses: wherein the metadata file is an extensible markup language (XML) file (i.e., see paragraph 0063, Calusinski).

Regarding claims 7, 20 and 33, all the limitations of this claim have been noted in the rejection of claims 1, 14 and 27 above. In addition, Calusinski/Mullins discloses: wherein the

persistence structure corresponds to the structure of the one or more classes (i.e., persistent data structure may be carried out by identifying the table in dependence upon a class name of the business object... see paragraph 0060, Calusinski).

Regarding claims 8, 21, 34, all the limitations of this claim have been noted in the rejection of claims 1, 14 and 27 above. In addition, Calusinski/Mullins discloses wherein the persistence structure maps the data to be persisted to a single table in a database (i.e., simple mapping may be an algorithmically inferred one-to-one correspondence between fields in the business object and fields in the persistent data store, see paragraph 0062, lines 7-11, Calusinski).

Regarding claims 9, 22 and 35, all the limitations of this claim have been noted in the rejection of claims 1, 14 and 27 above. In addition, Calusinski/Mullins discloses: wherein to determine a persistence structure for the data of the one or more classes the class structure based enhancer is configured to apply one or more rules to the results of Java reflection calls of the one or more input class (i.e., mapping rules see paragraph 0063, Calusinski) bytecode parsing of one or more input classes (see paragraphs 0054, 0055, 0161, 0164, 0188, 0194, Mullins).

Regarding claims 10, 23 and 36 all the limitations of this claim have been noted in the rejection of claims 9, 22 and 35 above. In addition, Calusinski/Mullins discloses: wherein the one or more rules applied by the class structure based enhancer include

persisting class fields that are not static or transient (i.e., persistent fields in persistent data store see paragraph 0028, Calusinski).

Regarding claims 11, 24, 37, all the limitations of this claim have been noted in the rejection of claims 1, 14 and 27 above. In addition, Calusinski/Mullins discloses wherein the rules applied by the class structure based enhancer include storing persistent fields of a given class in a table corresponding to that class in a database (i.e., metadata describing the data structure of a persistent data stores, ..., see paragraph 0024, Calusinski).

Regarding claims 12, 25 and 38, all the limitations of this claim have been noted in the rejection of claims 1, 14 and 27 above. In addition, Calusinski/Mullins disclose: wherein the one or more classes are comprised in a Java Archive (JAR) file (see paragraph 0160, Mullins).

Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include wherein the one or more classes are comprised in a Java Archive (JAR) file in the system of Calusinski as taught by Mullins. The motivation being to provide the syntax of the config file for mapping data to objects and object caching system for multiple users having coordinated multiple caches (0016, Mullins).

Regarding claims 13, 26, 39, all the limitations of this claim have been noted in the rejection of claims 1, 14 and 27 above. In addition, Calusinski/Mullins discloses, wherein the class structure based enhancer is further configured to output the enhanced one or more

classes and a database schema for storing the data to be persisted in a persistent data store (see paragraph 0033-0034, Calusinski).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Contact information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cindy Nguyen whose telephone number is 571-272-4025. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu M. Mofiz can be reached on 571-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Cindy Nguyen
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Examiner, Art Unit 2161

/Apu M Mofiz/

Supervisory Patent Examiner, Art Unit 2161